Final Technical Status Report

For

DOTC-13-01-INIT112

Armor Solutions for Energetic and Non-Energetic Novel Defeat Mechanisms

Reporting Period: 28 Sep 2015

Ordnance Technology Initiative Team

CLogic Defense - Lead

Metalcrafters

Initiative Team Technical POC

Leonard J. Mecca
CLogic, Defense
26 Sky View Drive
Avon, CT 06001
Office: 860-324-2227
E-mail: ljmecca@clogicdefense.com
www.clogicdefense.com

Report Documentation Page

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19 FEB 2014	**Final**	

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Final Report: Armor Solutions for Energetic and Non-Energetic Novel Defeat Mechanisms	**OTA# W15QKN-12-9-0001**
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER **N/A**
6. AUTHOR(S) **Herbst /Diana-Lynn**	5d. PROJECT NUMBER **DOTC 13-01-INIT-112**
	5e. TASK NUMBER **N/A**
	5f. WORK UNIT NUMBER **N/A**
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **CLogic, Defense 26 Sky View Drive Avon, CT 06001**	8. PERFORMING ORGANIZATION REPORT NUMBER **DOTC 13-01-INIT-112-F**
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) **ARDEC**	10. SPONSOR/MONITOR'S ACRONYM(S)
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12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT
Summary of prototyping efforts for next generation armor designs using advanced materials and processes

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**UU**	**5**	

1. Comments on Technical/Cost/Schedule Performance

Technical: Work on this effort is completed

Cost: Work on this effort is completed

Schedule: Work on this effort is completed

2. Initiative Quad Chart

Goals & Objectives	Initiative Information
Develop and fabricate next generation designs using advanced materials and processes. This will include but is not limited to, component fabrication; process integration, configuration management, materials development, coatings technology, packaging technology and overall systems engineering. Prototype and integrated system components shall be produced for developmental test units, production test units and integration units.	**Initiative Lead**: CLogic LLC **Team Members**: Metalcrafters Inc. **Period of Performance**: 24 months
Milestones & Technical Achievements	**Implementation & Payoff**
	Schedule: February 2016 **Status**: 100% complete
	Technology will provide tactical vehicles responsiveness with sustained momentum; deployable across a full spectrum of operations; agile from support operations to warfighting and back; lethality and exceptional tactical mobility; survivability that combines maximum protection and leverages the best combination of technology; supportable and affordable; and is sustainable and aggressively reduces the logistics footprint and replenishment demand
Current Status: Technical = Green Schedule = Green Cost = Green	

3. Supplemental Information

In order to improve the usefulness of the quad charts and provide DOTC with sufficient initiative information, the Quarterly Report must be supplemented with data described below.

3.1 Technical Achievements

Milestone Status:

MS #	TASK	Total
1	TASK 1A: Develop and demonstrate sustainable optical manufacturing processes	100%
2	TASK 2A: Develop and demonstrate sustainable coating technologies	100%
3	TASK 3A: Design Tooling Processes	100%
4	TASK 4A: Component design and fabrication	100%
5	TASK 5A: Produce Developmental Units	100%
6	Quarterly Technical and Business Status Report	100%
7	TASK 6A: Produce Production Test Units	100%
8	TASK 7A: Systems Engineering	100%
9	TASK 8A: Process Integration	100%
10	TASK 2B: Develop and demonstrate sustainable coating technologies	100%
11	Quarterly Technical and Business Status Report	100%
12	TASK 1B: Develop and demonstrate sustainable optical manufacturing processes	100%
13	TASK 3B: Design Tooling Processes	100%
14	TASK 4B: Component design and fabrication	100%
15	TASK 5B: Produce Developmental Units	100%
16	Quarterly Technical and Business Status Report	100%
17	TASK 6B: Produce Production Test Units	100%
18	TASK 7B: Systems Engineering	100%
19	TASK 8B: Process Integration	100%
20	TASK 1C: Develop and demonstrate sustainable optical manufacturing processes	100%
21	TASK 2C: Develop and demonstrate sustainable coating technologies	100%
22	Annual Technical and Quarterly Business Status Report	100%
23	TASK 3C: Design Tooling Processes	100%

24	TASK 4C: Component design and fabrication	100%
25	TASK 5C: Produce Developmental Units	100%
26	TASK 6C: Produce Production Test Units	100%
27	TASK 7C: Systems Engineering	100%
28	Quarterly Technical and Business Status Report	100%
29	TASK 8C: Process Integration	100%
30	TASK 1D: Develop and demonstrate sustainable optical manufacturing processes	100%
31	TASK 2D: Develop and demonstrate sustainable coating technologies	100%
32	TASK 3D: Design Tooling Processes	100%
33	Quarterly Technical and Business Status Report	100%
34	TASK 4D: Component design and fabrication	100%
35	Quarterly Technical and Business Status Report	100%
36	TASK 5D: Produce Developmental Units	100%
37	TASK 6D: Produce Production Test Units	100%
38	TASK 7D: Systems Engineering	100%
39	TASK 8D: Process Integration	100%
40	Annual Technical and Quarterly Business Status Report	100%
41	TASK 9: Transition plan	100%
42	Final Technical and Business Status Report	100%

3.2Technical Readiness Level Status and Technology Transfer Information:

Please indicate the current Technology Readiness Level (TRL) and technology transfer information for the prototype development effort based on the information requested and definitions in the chart (Insert chart number) below.

Technical Readiness Level Status: 5

3.3 Technical Readiness Level Status and Technology Transfer Information:

Please indicate the current Technology Readiness Level (TRL) and technology transfer information for the prototype development effort based on the information requested and definitions in the chart (Insert chart number) below.

Technology Transition Information

1. Technology or technologies being worked on: Active Protection Interceptor

Munitions Program

2. Is this technology an extension of a previous DOTC agreement or contract: No

3. System to which technology can transition: Unmanned Aerial Vehicles

4. Commercial applications if applicable: N/A

5. Government organizations or DoD Armed Force Services interested in technology other than AOR's organization: US Air Force

6. DoD Armed force services or organizations that could benefit from technology (not mentioned above): US Air Force

7. Initial Technology Readiness Level (TRL) of technology at the start of agreement: 3

8. Current Technology Readiness Level (TRL) of technology: 5

9. Final Technology Readiness Level (TRL) of technology expected at end of agreement: 8

10. Next step in technology transition process: Technology successfully demonstrated at the joint DoD Black Dart exercise; modifications will be made based on the Black Dart data and modified prototypes produced.

3.3 Problems Encountered and Action Taken

- None

3.4 Non-Traditional Defense Contractor Participation

Name of Nontraditional*	Planned Start Date	Actual Start Date	Reason for Deviation from Plan
CLogic Defense	2/19/2014	2/19/2014	
Metalcrafters Inc	2/19/2014	2/19/2014	

3.5 Plans for Next Quarter: Deliver the following to the Government:

None